SEA TURTLE BEACH PATROL PROGRAM
Virgin Islands National Park
2015 Season

Dear Volunteer:

Thank you for your willingness to help patrol sea turtle nesting beaches in the Virgin Islands National Park! The endangered hawksbill and leatherback sea turtles are the only remaining turtle species that regularly nest on St. John. The survival of each individual of an endangered species is important. With your help we hope to 1) identify those beaches that support sea turtle nesting, 2) determine the number of nests and the number of turtles nesting on St. John, and 3) mitigate any obvious threats to nesting females and hatchlings.

To maximize the information gathering process, we are asking for one (primary) volunteer to be responsible for monitoring one beach. Most beaches can be inspected once each week, preferably within the first 3 hours of daylight, from mid-July through October. A few beaches with significant activity can be monitored (ideally) 2 mornings per week. Peak nesting activity occurs in August and September, although nesting activities have taken place during each month of the year.

Primary volunteers are responsible for consistently monitoring the designated beach. She or he may have others assist in the effort to ensure "continuous" monitoring. Coordination between the primary volunteer and the other volunteers who monitor the same beach is important. This rigorous data collection is essential for the survey to be meaningful. Two data sheets were developed to record sea turtle nesting information. The primary volunteer is responsible for getting the data sheets to the NPS.

General Nesting Info: The hawksbill turtle is one of the only remaining turtles to regularly nest on St. John. Females nest every other year and make their nests in the vegetation. She will commonly lay 3, 4 or 5 clutches at 14 day intervals, generally on the same beach. Clutch size decreases with each nest; between 150 - 225 eggs may be laid at one time. The soft, leathery, white eggs are about the size of ping-pong balls; hatchlings are uniformly reddish-brown, just smaller than a silver dollar.

Leatherbacks are uncommon on St. John, averaging about one observed nest per year. Their nests are obvious due to the size of the disturbed area, usually mid-beach. They generally lay approximately 80 yolked eggs and 30 yolkless eggs per nest. Eggs are cue-ball sized. Incubation takes approximately 60 days and hatchlings are 2-3 times the size of a hawksbill hatchling.

To monitor the beach: Walk the length of the sandy beach below the vegetation line and observe the line in the sand left from the previous patrol. At the end of the beach redraw the line in the sand by dragging a walking stick in the sand. Record any activities, cover the tracks with sand, then remake the line over the tracks so the next patroller does not record the same activity. Remember that activities from the same turtle may be about 14 days apart. Later in the season, if your beach had some activity, remember to watch for signs of hatches and predations. The Beach

Patrol Log Sheet will always be completed when a beach is monitored. The Activity Sheet is completed only when turtle tracks are found or if nesting activity is evident.

Beach Patrol Log Sheet: Record beach, date, time and observer name. If no adult turtle tracks were observed since the previous patrol, enter "NO" in the Crawl Column. If a fresh crawl was encountered, write "YES" in the Crawl Column. If more than one crawl occurred, indicate the number in this column. A Dry Run occurs when a turtle visits a beach, begins to nest, then returns to the ocean without laying eggs. A Nest is often impossible to distinguish from a dry run. When two small mounds are present at one end of a nesting (or body) pit, this is a good indication of a nest. Enter "?" in the Nest Column if it is unclear whether or not eggs were laid.

Indicate if tracks are symmetrical or asymmetrical by writing "S" or "A" in this column. And finally, indicate the presence of a hatch or a predation by writing "YES" in the appropriate column.

Because the activity is being reconstructed, the presence of a nest is always a judgment call. Please **do not** probe or dig for eggs to determine their presence.

Activity Sheet: Complete this sheet for each separate nesting activity, even if you suspect the activities were made by the same individual. The number of pairs of tracks (leading to and from the water) determines the number of activities that occurred on a given night.

Record date, time, beach and observer name. Add 60 days to the date of the activity and record. If you find the activity on August 3 then use August 2 as the nest date. Circle vegetation type, pace and record distance to high water line. Indicate if nest is in danger of seawater inundation. If so, please contact Biosphere Reserve Office.

Diagram the activity using the standard symbols in the space provided. Be as accurate as possible and realize that this sheet will be used in about 75 days to relocate the activity and attempt to excavate the nest.

Completed Forms: Please deliver completed data sheets to the NPS Visitor Center. Just ask the Desk Attendant to deposit them in the "Turtle Form Box" and ask for blank forms if more are needed. Forms may also be left at the Biosphere Reserve Office at Lind Point.

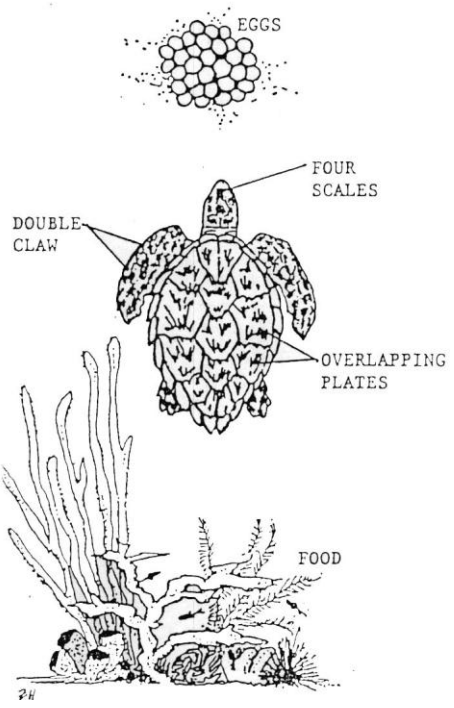
Nest Excavations: Interested volunteers may be asked to participate with park personnel in relocating and excavating nests. Please let me know if you are interested in helping us to determine the nesting success.

Contact The Biosphere Reserve Office: Please notify the Resource Management Office at 693-8950 (Shane ext.222 or Thomas ext. 225) if you suspect a hatch, predation, turtle stranding, or turtle/shells on the beach.

Thank you! The National Park Service relies on volunteers for many projects, and because of volunteers like YOU, work is done that could not otherwise be done. We appreciate your help and support!

Scientific Name: *Eretmochelys imbricata*

Common Name: Hawksbill Turtle, Tortuga Carey



General Description

Oval shell beautifully mottled with brown, orange, yellow, red; the plates that cover the shell (=scutes) overlap one another; distinct scales (dark brown with yellow margins) on head and flippers; 4 scales between the eyes; adults 70-90 cm carapace length; to 80 kg; 2 claws on each front flipper; narrow, pointed face and beak; coral reef habitats

World Status

Endangered (IUCN Red Data Book; U.S. Endangered Species Act)

Distribution

Circumglobal, tropical; major breeding rookeries: Cuba, Panama (Caribbean); the Guianas (French Guiana, Guyana, Surinam); Brazil; Seychelles; Maldives; Sudan; Oman; Australia

Diet

Invertebrates (sponges, crabs, hydrozoans, bryozoans, clams, gastropods, tunicates); algae

Nesting Habitat

Beach often flanked by nearshore coral reef or rock; nest often well hidden within the beach forest; asymmetrical crawl 0.5- 0.8 m across

Eggs and Hatchlings

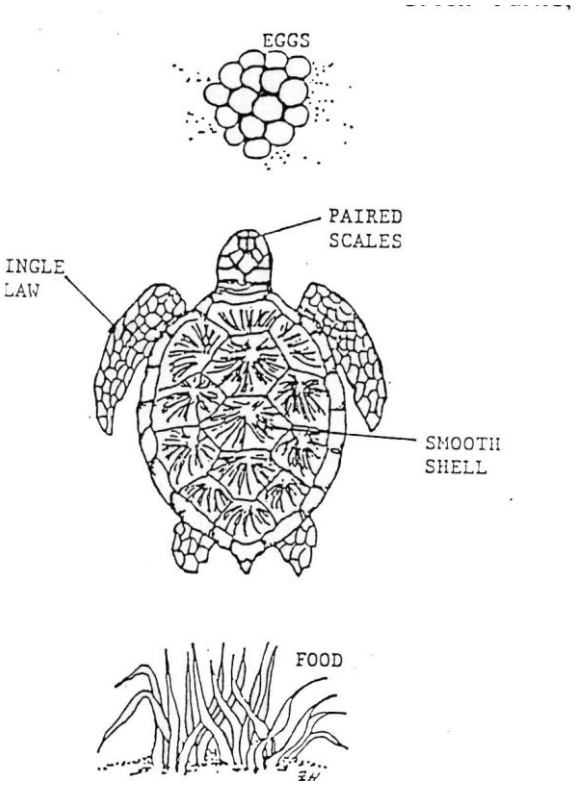
Eggs white and spherical; eggs 35-40 mm diameter; nest depth 40-45 cm; 50-200 eggs per clutch; 3-6 clutches per annum; 55-72 days incubation; Hatchlings 40-45 mm (shell length); uniformly gray or reddish brown; asymmetrical crawl

Threats

Traditionally killed for shell; shell ("tortoiseshell" "carey", or "bekko") sold illegally, for ornamentation; eggs harvested; drowning shrimp trawl nets and set nets; degradation of nesting and foraging habitats

Scientific Name: *Chelonia mydas*

Common Name: Green Turtle, Tortuga verde



General Description

Olive brown shell (=carapace) with darker streaks; underside yellow; epifauna (barnacles) rare; distinct scales on head and flippers; 2 scales between the eyes; adults 95-120 cm carapace length; up to 230 kg; single claw on each front flipper; rounded jaw, slightly serrated; seagrass meadows (feeding), reefs (sleeping); highly migratory

World Status

Endangered (IUCN Red Data Book
U.S. Endangered Species Act)
Caribbean populations threatened

Distribution

Global tropical and subtropic: seas; highly migratory; major breeding rookeries: Mexico (Pacific), Ecuador, Costa Rico: (Caribbean), Brazil, Isla Aves; Surinam, Australia, Ile Europa Seychelles, Philippines

Diet

Herbivore: seagrasses (Thalassia; Syringodium, Halodule), algae may graze the same area for many months, moving only when grass becomes stressed; feeding and breeding areas often separated by lOOs or l000s kms

Nesting Habitat

Prefers an open beach platform: often leaves deep nesting pit (1.5 m wide, 0.5 m deep); symmetrical crawl 1-1.5 m across; nesting nocturnal

Eggs and Hatchlings

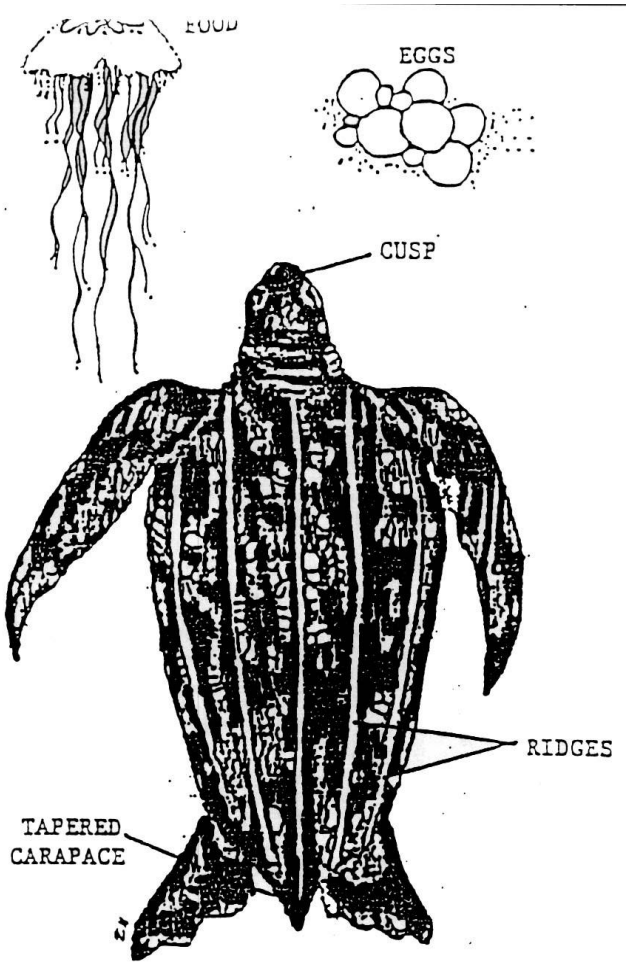
Eggs white and spherical, 48- mm diameter; nest depth 45-50cm; 120-150 eggs per clutch; 3-6 clutches per annum; incubation 55-72 days; Hatchlings 50-55mm (shell length); black dorsal, white ventral, white margined flippers and carapace: asymmetrical crawl

Threats

Traditionally killed for meat oil; eggs harvested; shrimp trawl nets and degradation of nesting and foraging areas

Scientific Name: ***Dermochelys coriacea***

Common Name: Leatherback, Laud



General Description

Largest of the marine turtles; black with white spots; no bony shell; the smooth skin of the adult lacks scales or claws; the leathery "shell" is strongly tapered to the rear and is raised into seven prominent ridges; 130-165 cm carapace length; 260-500 kg; two sharp cusps on upper jaw; powerful swimmer, deep diver; open -water habitat

World Status

Endangered (IUCN Red Data Book U.S. Endangered Species Act)

Distribution

Global 71°N to 47°S; temperate resident, tropical nester; main breeding rookeries: Mexico (Pacific); Costa Rica (Caribbean) Terengannu, Malaya; the Guiana (French Guiana, Guyana, Suriname): St. Croix, USVI

Diet

Primarily jellyfish and other soft bodied invertebrates; main feed at the surface or at depth

Nesting Habitat

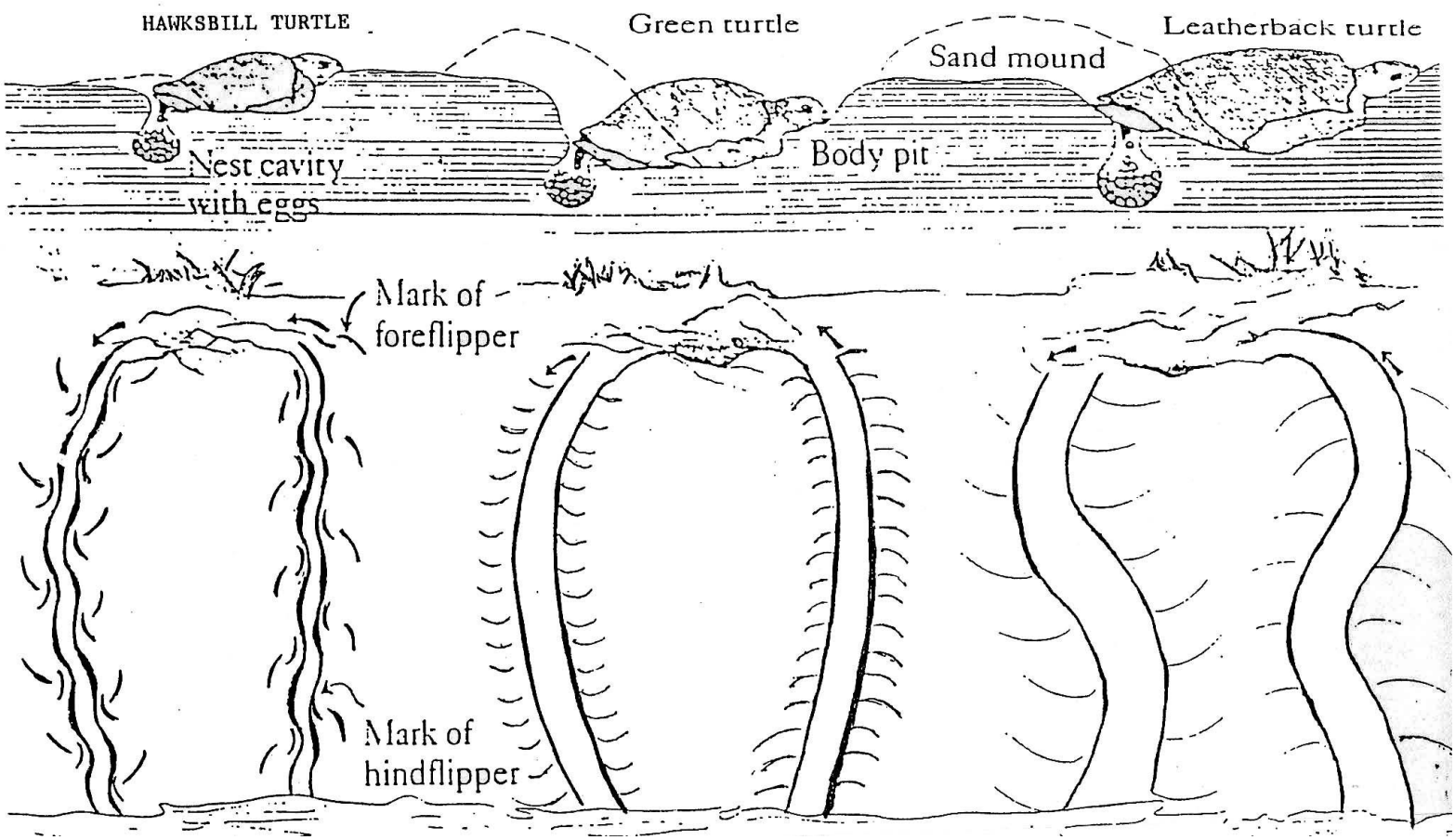
Prefers an open beach platform: offshore access unobstructed by reef or rock formations; nest disturbance 3-10 m in length; symmetrical crawl 2 m across

Eggs and Hatchlings

Eggs white and spherical; fertile eggs 50-54 mm diameter (infertile eggs smaller, variable in size); nest depth 65-75 cm; 60-120 fertile eggs per clutch; 1-11 clutches per annum (average 6.5); incubation 55-72 days;. Hatchlings 60-65mm (shell length); black with white margined flippers and white dorsal stripes; symmetrical crawl

Threats

Traditionally killed for meat, oil; eggs harvested; plastic ingested (mistaken for jellyfish); drowning in longlines, shrimp trawl nets, and gill nets;degradation of nesting beach



Each species of sea turtle can be distinguished by its tracks and nest site characteristics. The arrows in the illustration indicate the direction of travel.

The track made by a Hawksbill as it ascends the beach to the nest site and then returns to the sea is wavy and punctuated by alternating flipper marks. The nest site is characterized by a shallow body pit and small sand mound (dotted line).

The track of a green turtle is symmetrical and the nest site (mid-beach) has a deep body pit and large adjacent sand mound.

The track of a leatherback turtle is very wide and usually curves across the beach slope rather than straight up the beach. Nest site is usually mid-beach. The large body pit and adjacent sand mound of a leatherback wide can span 3 to 5 meters (9 to 15 feet).

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Beach: ________________________________

Date	**Time**	**Observer Name**	**Crawl Y/N**	**Dry Run Y/N**	**Nest Y/N**	**Tracks Y/N**	**Hatch Y/N**	**Pred Y/N**

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Date: _____ **Time**:_____ **Beach**:_____

Observer:_____ **Date of Nesting**:_____

Date to check for hatching:_____

Site of activity: Mid-Beach, Upper Beach, Cobble, Vegetation Edge, In Vegetation (woody, herbaceous),
Other:_____

Distance from nest to high water mark:_____Meters or Feet
Is nest in danger of sea swell inundation? YES or NO?

Crawl Diagram:

Beach
Ocean

Note: Please include any unusual weather or sea conditions, etc.during the night of nesting or discovery.

Forward completed activity Sheets and Patrol logs to Shane McKinley at VINP or fax to 693-9500. Please report any unusual sea turtle information, e.g. nest predation, hatching, etc. to 693-8950 ext.222 or ext.225 ASAP. If more space is necessary, please use the backside of sheet. **Your assistance is much appreciated!**